

REMARKS**Allowable Subject Matter**

In the January 21, 2004 Office Action, claims 12-18 were allowed.

Rejection of Claims under 35 U.S.C. §102(e)

In the January 21, 2004 Office Action, claims 1-3 and 8 were rejected under 35 U.S.C. §102(e) as being anticipated by Cassel, et al. (U.S. Patent No. 6,245,837).

This rejection is hereby traversed and reconsideration of the patentability of the pending claims is requested in light of the following remarks.

To anticipate a claim, a reference must be enabling. This point was recently reaffirmed in an April 7, 2000 decision of the Court of Appeals for the Federal Circuit (CAFC).¹ Citing *In re Paulsen*,² the court stated that to be anticipating, a prior art reference must:

- 1) disclose each and every identical limitation of the claimed invention and arranged as in the claimed invention;
- 2) be enabling; and
- 3) describe the claimed invention sufficiently to place it in possession of a person of ordinary skill in the field of the invention.

The Cassel, et al. reference does not meet this standard.

Applicants' claim 1 reads as follows:

1. A process for producing formed cellulosic articles, particularly fibres and filaments, comprising:
 - a) dissolving cellulose in an aqueous solution of N-methylmorpholine N-oxide (NMMO) to form a solution of cellulose and NMMO, and
 - b) extruding the solution of cellulose and NMMO through an extrusion die via an air gap into a precipitation bath with precipitation of the formed articles, wherein said solution of cellulose and NMMO and/or said precipitation bath containing a tenside,

¹ *Helifix Ltd. v. Blok-Lok, Ltd.*, 54 USPQ2d 1299 (Fed. Cir. 2000).

² *In re Paulsen*, 31 U.S.P.Q.2d 1671, 1673 (Fed. Cir. 1994).

characterized in that in the step b) the tenside content c of the solution of cellulose and NMMO and/or of the precipitation bath is in the range $100 \text{ ppm} > c \geq 5 \text{ ppm}$, and the width of the air gap is in the range from 2 to 20 mm.

Thus, applicants' claimed invention includes:

- 1) a solution of cellulose and NMMO;
- 2) a tenside at a concentration of from 5 to 100 ppm that may be included in either the solution of cellulose and NMMO or in the precipitation bath; and
- 3) extrusion of the solution of cellulose and NMMO, with or without the tenside occurs through an air gap in the range of 2 to 20 mm.

In contrast, the Cassel, et al. reference describes a composition that must include both cellulose and a linear synthetic polymer. The cellulose and synthetic polymer are combined in a tertiary amine oxide solution. Clearly, the natural and synthetic polymeric solution dissolved in NMMO is very different from applicants' cellulose and NMMO solution. As such, the starting material of Cassel, et al. is entirely different from that of applicants' claimed invention. It should be noted that Cassel, et al. describes solutions that contain both the natural and synthetic polymers and none of the solutions are limited to only cellulose and NMMO. The Cassel, et al. solutions must contain the linear synthetic polymer because as stated in column 2, lines 51-54:

"The incorporation of the synthetic linear polymer with the cellulose results in a composite product with unexpected positive effects. Thus, the ability of the new products to fibrillate is essentially decreased, while the tensile strength and the elongation at break are essentially increased."

Accordingly, the starting cellulose/copolymer composition of Cassel, et al. that is dissolved in NMMO, is different from applicants' claimed invention. For this reason, the Cassel, et al. reference has not "identically disclosed or described" the presently claimed invention as required of an anticipatory reference applied under section 102. Further, the disclosure as a whole cannot be considered to sufficiently direct one skilled in the art to the present invention, which includes a solution of cellulose and NMMO. (See *In re Felton*, 179 USPQ 295 (CCPA 1973).

The Office states that Cassel, et al. includes a surfactant as a modifier, as described in column 2, lines 40-48. However, even if a surfactant is optionally added to the cellulose/copolymer solutions of Cassel, et al., it would not alter the fact that Cassel, et al. describes an entirely different starting material.

Moreover, it is well settled in the law that "to serve as an anticipating reference, the reference must enable that which it is asserted to anticipate." *Elan Pharmaceuticals, Inc. v. Mayo Found. for Med. Educ. and Res.*, 68 U.S.P.Q.2d 1373, 1375 (Fed. Cir. 2003). To be enabling, "the prior art reference must

teach one of ordinary skill in the art to make or carry out the claimed invention without undue experimentation.” *Minnesota Mining and Manufacturing Co. v. Chemque, Inc.*, 64 U.S.P.Q.2d 1270, 1278 (Fed. Cir. 2002).

Turning to the present case, Cassel, et al. is not an enabling disclosure because the disclosure cannot enable that which it is asserted to anticipate. One skilled in the art reading the Cassel, et al. reference would have to completely eliminate the use of the copolymer and then pick one of the many optional modifiers in an attempt to recreate applicants' claimed invention. Identifying an anticipatory solution would certainly be a serendipitous event because Cassel, et al. provides no guidance or suggestion of success of using a solution that does not include the copolymer. Clearly, removing the copolymer from the Cassel, et al. solution would be a huge leap especially in light of the fact that it is quite evident that the copolymer is the additive that enables the Cassel, et al. solution to overcome the deficiencies of the prior art. There is no disclosure in the entire Cassel, et al. reference that would provide enablement to go in the direction of applicants' claimed invention without undue experimentation, and as such, Cassel, et al. cannot be considered an enabling and anticipatory reference that defeats the patentability of applicants' claimed invention.

Applicants recognize that the examples of Cassel, et al. discuss extrusion of the cellulose/copolymer solutions through an air gap of about 20 mm between the spinneret and precipitation bath. However, applicants also recognize that there is no disclosure that the cellulose/copolymer solution or the precipitation bath includes any modifiers, such as a surfactant. Furthermore, the starting solutions are entirely different from applicants' claimed starting material, and as such, all the limitations, arranged as in the presently claimed invention, are not disclosed. The examples of Cassel, et al. do not provide an anticipatory disclosure of applicants' claimed invention.

Applicants therefore respectfully request withdrawal of the §102(e) rejection of claims 1-3 and 8 based on Cassel, et al.

Conclusion

Applicants have satisfied the requirements for patentability. All pending claims are free of the art and fully comply with the requirements of 35 U.S.C. §112. It therefore is requested that Examiner Tentoni reconsider the patentability of pending claims in light of the distinguishing remarks herein and withdraw all rejections, thereby placing the application in condition for allowance. Notice of the same is earnestly solicited. In the event that any issues remain, Examiner T ntoni is requested to contact the undersigned attorney at (919) 419-9350 to resolve same.

Respectfully submitted,



Marianne Fuierer

Reg. No. 39,983

Attorney for Applicant

**INTELLECTUAL PROPERTY/
TECHNOLOGY LAW**

Telephone: (919) 419-9350

Fax: (919) 419-9354

Attorney Ref: 4197-102 RCE